Yoichi YUZAWA* & Sinske HATTORI**: A new *Frullania* species from Brazil

湯沢陽一*・服部新佐**: ブラジル産ヤスデゴケ属の一新種

Recently, we have examined some *Frullania* collections made in Brazil and housed in SP and NY. We found a new species of subgen. Diastaloba sect. Graciles, remarkable in having dispersed ocelli in the leaf-lobes and -lobules. We know no species of the subgenus with such ocelli. However, *Frullania crenulifolia* Jack & Steph. seems to be closely related to the new species, though it is different by the acute leaf-lobes and the almost ovate to obovate, entire underleaves in addition to the absence of dispersed ocelli. In the present new species the leaf-lobes are rounded at the apex, the underleaves are subquadrate in outline with 2–4 blunt teeth at and/or above the shoulder.

Other diagnostic characters of the new species are: 1) short-clavate leaf-lobules obliquely spreading and remote from the stem, 2) leaf-lobes and -lobules with dispersed ocelli, 3) leaf-lobes rounded at the apex, 4) somewhat smaller cell-cavities (12.5–17.5×10.0–15.0 μm at the middle), 5) subquadrate underleaves 2–4-toothed at and/or above the shoulder. The characters 1 and 4 indicate that the present new species is a member of sect. Graciles of subgen. Diastaloba. It is known only by the male plant, but is easily distinguished from other members of sect. Graciles by the character 2, 3, and 5.

Frullania (Diastaloba) **vitalii** Yuzawa & Hatt., sp. nov. Figs. 1 & 2.

A *Frullania crenulifolia* Jack & Steph. differt foliorum lobis (apice rotundato) lobulisque disperse ocellatis, amphigastriis subquadratis, margine supero 2–4 dentato.

Plants minute, growing in patches on bark of trees or on rocks, yellowish- to dark reddish-brown when dry. Stem ca. 1.5 cm long, ca. 0.08 mm in diam., with leaves 0.59–0.65 mm wide, irregularly pinnately or rarely bipinnately branched, branches obliquely spreading, usually less than 4 mm long. Lobes of

* Taira Commercial High School, 45 Nakashio, Taira, Iwaki-shi, Fukushima-ken, 970; also the Hattori Bottanical Laboratory. 平商業高等学校.
** Hattori Botanical Laboratory, 3888 Obi-Honmachi, Nichinan-shi, Miyazaki-ken, 889-25. 服部植物研究所.

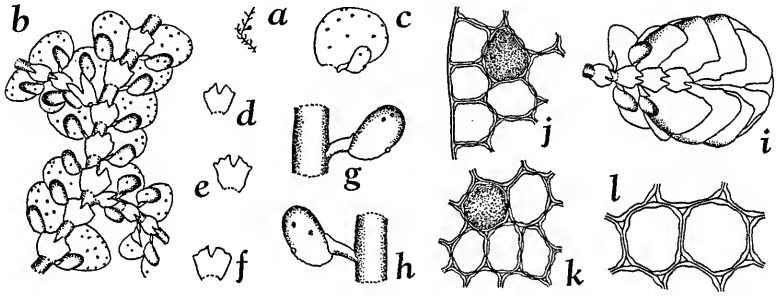

Fig. 1. *Frullania vitalii* Yuzawa et Hatt. *a*: Branching, dot representing androecium, ×0.6. *b*: Portion of stem, ventral view, ×22. *c*: Stem-leaf, ×22. *d–f*: Stem-underleaves, all ×22. *g–h* Leaf-lobules and styli on stem, both ×55. *i*: Androecium, ×22. *j–l*: Cells of lobe of stem-leaf, *j* from margin, *k* from middle, *l* from base, all ×440. All drawn from holotype (Vital no. 5570).

stem-leaves loosely imbricate to remote, widely spreading, dorsally extending slightly beyond the farther edge of stem, nearly flat, ovate, with dispersed ocelli, rounded apices, and subtruncate to somewhat arched dorsal bases, ca. 0.44 mm long and 0.37 mm wide; cavities of marginal cells 10.0–15.0×10.0–12.5 μm, of median cells 12.5–17.5×10.0–15.0 μm, of basal cells 17.5–25.0×15.0–20.0 μm, yellowish-brown, cell-walls reddish-brown, thin, somewhat sinuate, trigones small, intermediate thickenings absent; scattered ocelli usually 15–20 per lobe, cavities reddish-brown, usually somewhat larger than the neighboring cells, cell-walls and -trigones almost as same as those of adjacent cells. Lobules of stem-leaves clavate, ca. lobule-width remote, and spreading from (at angles of 30–60° with) the stem, ca. 0.16 mm long 0.09 mm wide, with dispersed ocelli, rounded apices, and wide mouths, mouth-margins arched, somewhat crenate, proboscis present just below the middle, scattered ocelli 5–8 per lobule. Styli large, foliaceous, multicellular, ca. 0.09 mm long and 0.03 mm wide, with subacute apices. Stem-underleaves remote, flat and ± appressed to the stem, subquadrate in outline, ca. 0.19 mm long and 0.17 mm wide, ca. 1/3-bifid, sinuses triangular, obtuse, lobes triangular, with narrowly obtuse to subacute apices and with 1–2 blunt teeth along outer margin, bases slightly decurrent; insertions transverse to somewhat arched; rhizoid-initial area at middle, indistinct, rhizoids rare, short.

Dioicous (gynoecium not seen). Androecia terminal on short branches,

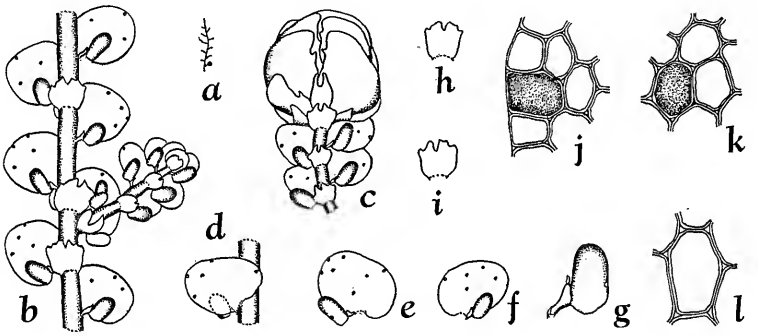

Fig. 2. *Frullania vitalii* Yuzawa et Hatt. *a*: Branching, dot representing androecium, ×0.6. *b*: Portion of stem, ×22. *c*: Portion of branch with androecium, ×22. *d–f*: Stem-leaves, *d* dorsal view, *e–f* ventral view, all ×22. *g*: Lobule of setm-leaf, ×55. *h–i*: Stem-underleaves, both ×22. *j–l*: Cells of stem-leaf, *j* from margin, *k* from middle, *l* from base, all ×440. All drawn from paratype (Boom & Mori no. 1244).

capitate, of 4-5 pairs of bracts, comparatively large (0.85 mm long and 0.75 mm wide).

Type: Brazil: São Paulo State, Municipio de Juguiá, along BR-116, on trunk of an isolated tree, leg. D. Vital no. 5570 (holotype in NICH; dupl. in SP & hb Y. Yuzawa); Bahia State, Municipality of Morro do Chapeu, Telebahia Tower, ca. 6 km S. of Morro do Chapeu, elev. ca. 1000 m, Campo Rupestre, leg. B.M. Boom & S.A. Mori no. 1244 (NICH, NY).

Distr.: Known only from the type collections.

We wish to thank Dr. D.M. Vital, Instituto de Botânica, São Paulo (SP), and Dr. W.R. Buck and Dr. B.M. Thiers, the New York Botanical Garden, N.Y. (NY), for placing the interesting material at our disposal.

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最近筆者らは Dr. D. Vital 採集のブラジル産ヤスデゴケ属(苔類)標本と，ニューヨーク植物園の未同定ヤスデゴケ属標本を調べる機会を得た。その中から1新種を見出したので，*Frullania vitalii* Yuzawa et Hatt. なる学名を付して記載した。この新種は *F. crenulifolia* Jack & Steph. に似るが，葉および葉下片中に多数の ocelli を散在すること，腹葉上部に鈍歯を有することで区別できる。ブラジル特産である。